



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/384,380	08/27/1999	MICHIHISA TASAKA	0234-0370P	7724

2292 7590 08/19/2004

BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

LEE, RIP A

ART UNIT PAPER NUMBER

1713

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/384,380	TASAKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rip A. Lee	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-7 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7 and 10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This office action follows a request for continued examination (RCE) under 37 § C.F.R. 1.114, filed on June 14, 2004.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-3, 5-7, and 10-15 remain rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,433,062 to Tasaka *et al.* in view of U.S. Patent No. 5,221,781 to Aida *et al.* for the same reasons set forth previously.

***Response to Arguments***

4. Applicants traverse the rejection of claims 1-3, 5-7, and 10-15 under 35 U.S.C. 103(a) as being unpatentable over Tasaka *et al.* in view of Aida *et al.*

Applicant's arguments have been evaluated fully, and before addressing their concerns, it is instructive to review the rejection of record .

As shown previously, Tasaka *et al.* teaches all of the elements *claimed* in independent claim 1. However, the reference does not disclose use of a silane coupling agent containing a vinyl/epoxy terminal, functional group. Aida *et al.* provides the missing element in that thermoplastic resin compositions containing magnesium hydroxide filler is treated with silane coupling agent containing a vinyl terminal, functional group. Therefore, the rejection of record concerns whether the skilled artisan would have found it obvious to use vinyl silane coupling agent, as taught in Aida *et al.*, in the composition of Tasaka *et al.*

Applicants presently submit that Aida *et al.* does not disclose use of peroxide and hence, teaches away from the present invention. It is no contest that Aida *et al.* does not teach use of peroxides. Nonetheless, peroxide crosslinking is taught in the primary reference, Tasaka *et al.* Note that Aida *et al.* was invoked only to provide the missing element – the coupling agent. As such, arguments concerning crosslinking agent are not directed to the point of the rejection. Furthermore, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.<sup>4</sup>

---

<sup>4</sup> *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The declarant has provided supplemental data (Comparative example 9) showing that the point of introduction of filler, relative to the crosslinking stage, is critical in achieving the desired product. The examiner concurs that the skilled artisan would acknowledge that the sequence in which materials of a composition are compounded, indeed, affect the properties of the product. However, the instant claims are drawn to a composition rather than a process of making a composition. Furthermore, Applicant's arguments here do not address the subject matter of the rejection. The point of this section of the response remains unclear.

There are essentially two features of present claim 1 that are germane to the rejection which need to be considered. The first is the amount of filler and the second is the amount of coupling agent associated with the filler. Perhaps the difficulty in prosecution lies in the two-part range imposed in the claim. Applicants state that filler may be used in the range of 50-100 pw or in the range of 100-300 pw.

As noted in the prior office actions and by Applicants, Tasaka *et al.* discloses use of up to 100 pw of filler. In amounts greater than 100 pw, the mechanical strength of the elastomer composition is very low and its harness is so high that its flexibility is lost and the moldability of the composition is deteriorated. Here, one sees that the prior art actively teaches away from use of the claimed 100-300 pw range.

One needs only to address the claimed lower range of 50-100 pw of filler. In this case, the range lies squarely within the range disclosed in the prior art. It is here that the amount of filler comes into light. Applicants have indicated in previous responses that there is no specific teaching in the patent that at least 50 pw of the filler contains coupling agent.

Art Unit: 1713

Indeed, Tasaka *et al.* is silent with respect to amounts of coupling agent. However, it is maintained that even one of ordinary skill in the art would have found it obvious to arrive at the subject matter of the present claims because the skilled artisan, in absence of any teaching, would have found it obvious to treat all of the filler (as opposed to only 40 % or 50 % of the filler) with coupling agent. By doing so, the skilled artisan would have arrived at the subject matter of the present claims.

To date, Applicants have not provided rationale as to why this notion is not obvious to the routineer in light of the combined teachings of Tasaka *et al.* and Aida *et al.*

In light of these and prior discussions, the rejection of record has not been withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

ral

August 17, 2004



DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700